

TCU_Taiwan iGEM Laboratory Practices

1.	Don't eat, drink, prepare or store food, smoke, handle contact lenses or apply cosmetics in any laboratory.
2.	Know where the nearest eyewash, safety shower, and fire extinguisher are located. Know how to use them.
3.	Insist upon good housekeeping in your laboratory.
4.	Check for insects and rodents. Keep all areas clean.
5.	Secure all gas cylinders.
6.	Wear laboratory coats and other appropriate protective clothing while performing laboratory activities. Feet and legs should be covered; sandals and open-toed shoes should not be worn in laboratories. Wear appropriate gloves while handling infectious or toxic materials and animals. Do not wear lab coats. Gloves or other personal protective equipment outside the laboratory.
7.	Use a biological safety cabinet for handling infectious materials or materials requiring protection from contamination and a fume hood for toxic materials; mixed hazards need to be evaluated case by case.
8.	Fume hoods should be used for laboratory activities that could result in chemical explosions or fires, for experiments involving toxic, hazardous or carcinogenic compounds, and use of strong acids and bases. Biological safety cabinets should not be used for this kind of work. Fume hoods are workstations, not storage cabinets. Vented storage areas may be located under the fume hood work area. However, these are not for storage of flammables.
9.	Respect chemicals and radionuclides. Know their hazards and follow appropriate safety precautions. Chemical and radioactive waste must not be poured down the drain.
10.	All equipment must be documented to be free of chemical, biological, and radiological contamination before repair work is done or before moving equipment for storage or elsewhere.
11.	Never mouth pipette anything. Use mechanical pipetting devices only!
12.	Close laboratory doors while experiments are in progress. Restrict access to laboratory.
13.	Put liquid traps and in-line vacuum filters on all vacuum lines.
14.	Minimize or contain all aerosol-producing activities, large-volume work, concentrated solutions or cultures. These activities include centrifugation (use safety cups), vortex mixing (stopper tube), blending (use metal safety blender), sonication, grinding, opening containers of infectious material, inoculating culture flasks, inoculating animals, harvesting infectious materials from cultures or animals, and weighing or reconstructing toxic powders, etc.
15.	Place biological safety cabinets in low-traffic areas and minimize activities that disrupt air flow in or around cabinet.

16.	Decontaminate all work surfaces daily, and decontaminate all spills immediately.
17.	Decontaminate (by autoclaving or chemical disinfection) all biologically contaminated materials – glassware, animal cages, laboratory equipment, etc. – before washing, reuse or disposal. Discard materials via proper waste stream.
18.	Be careful with needles and syringes. Use only when alternative methods are not feasible.
19.	Syringes, needles, Pasteur pipettes, etc, should be placed in rigid, leak-proof containers (Sharps Safe) and discarded following the waste rules.
20.	Broken glassware and disposable pipettes (after decontamination) should be placed in a “Disposable Labware and Broken Glass Box” and discarded following the waste rules.
21.	Place contaminated biological materials in covered, leak-proof containers before removing them from the laboratory.
22.	Wash your hands after handling chemicals, infectious materials, animals, after removing gloves and before leaving the laboratory.